

REMARKS

This paper is responsive to an Official Action that issued in this case on October 1, 2002. In that Action, the Office rejected claim 30 under 35 USC §102 as being anticipated by U.S. Pat. No. 5,857,147 to Gardner et al. The Office also rejected claims 30-39 under the judicially-created doctrine of obviousness-type double patenting.

Claims 30-39 are in the case. Reconsideration of the present application is respectfully requested in view of the following remarks.

An Illustrative Embodiment of Applicants' Invention

Some embodiments of applicants' invention are directed to a method of operating a TDM-based fixed wireless-loop system. In accordance with the illustrative embodiments of the method, time slots are advantageously allocated based on prevailing system interference.

In accordance with the illustrative method, a request from a terminal for access to the "air" is denied unless suitable transmit **and** receive time slots are found. A "transmit" or "downlink" slot is a time slot that is used for base station transmissions to a terminal, while a "receive" or "uplink" slot is a time slot that is used for terminal transmissions to a base station.

A "suitable" transmit slot (*i.e.*, base station transmitter → terminal receiver) is defined in the specification as a slot in which:

- the interference level at the terminal receiver *due to other* in-cell and out-of-cell transmissions on the same time slot is low enough to enable satisfactory reception (at the terminal receiver); **and**
- the transmissions from the base station transmitter does not render unsuitable *other* communications links that are active.

A "suitable" receive slot (*i.e.*, base station receiver ← terminal transmitter) is defined in the specification as a slot in which:

- the interference level at the base station receiver *due to other* in-cell and out-of-cell transmitting terminals is low enough to allow satisfactory reception (at the base station receiver); **and**

- transmissions from the terminal transmitter will not render unsuitable *other* communications links that are active.

In some embodiments, all four of these requirements must be met before a time slot is allocated. This is an important feature of the inventive method, and one (of many) that distinguishes it from the prior art.

Claim 30 is Allowable over Gardner et al.

As described above, before allocating a time slot to a terminal that is requesting to communicate with a base station (*i.e.*, establish a communications link), not only must the estimated interference levels at the requesting terminal and the base station (due to other links sharing the same time slot) be at acceptable levels, but the estimated interference levels at the other links (due to the requesting terminal coming on-the-air) must also be at acceptable levels. Consistent therewith, claim 30 recites a method for operating a fixed wireless loop system comprising:

receiving a request by a first terminal to establish a first communications link; and
 allocating at least two temporal communication slots to said first terminal to support said first communications link when interference **caused by** and interference **experienced by** the first communications link are acceptably low.

Thus, the language "when interference **caused by** ... the first communications link" refers to the estimated interference levels at the other links due to the requesting terminal coming on-the-air. The language "when interference ... **experienced by** the first communications link" refers to the estimated interference levels at the requesting terminal and the base station due to the transmissions from other links sharing the same time slot.

*never
claimed*

In applicant's previous response, applicant inadvertently quoted incorrectly from claim 30. In particular, applicant wrote "when interference ... **received by** the first communications link" The correct language, which is quoted above, is "when interference ... **experienced by** the first communications link"

It is noted that the phrase "received by" is the sense of the term "experienced by" and this was the likely reason for the misquote. That is, to the extent that the first communications link experiences interference from other links that are currently on-the-air, it is because such interference (undesired transmissions) was received at the requesting terminal or base station.

The primary reference, Gardner, discloses a method and apparatus for controlling the data rates for communications to and from a base station and a plurality of remote users. According to the method, the usage of the forward link communications resource (base station → remote users) is measured **or** (*i.e.*, not both) the usage of the reverse link communications resource (base station ← remote users) is measured. The measured usage value for either the forward or reverse link resource is compared against at least one predetermined threshold value and the data rates are modified in accordance therewith. (See, Abstract.)

Gardner et al. provides no disclosure, suggestion or motivation to allocate time slots to a terminal wishing to establish a communications link, wherein the allocation is based on the interference that is caused by **and** experienced by the communications link. Consequently, claim 30 is allowable over Gardner. Furthermore, claims 31 through 36, which are dependent upon claim 30, are likewise allowable based on such dependence (in addition to reciting a number of independently patentable features).

Terminal Disclaimer

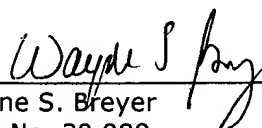
The Office also rejected claims 30-39 under the judicially-created doctrine of obviousness-type double patenting over claims 1-23 of U.S. Pat. No. 6,144,652. Applicant submits a terminal disclaimer, which overcomes this rejection.

Conclusion

It is believed that claims 30-39 are in condition for allowance. A notice to that effect is requested.

Respectfully,

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